

Stout

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **35**
- SRM **32.7**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (71.4%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (17.9%)	79 %	16
Grain	Jęczmień palony	0.35 kg (6.3%)	55 %	1000
Grain	Strzegom Czekoladowy ciemny	0.25 kg (4.5%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	60 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	Safale